

信号处理与通信系统设计

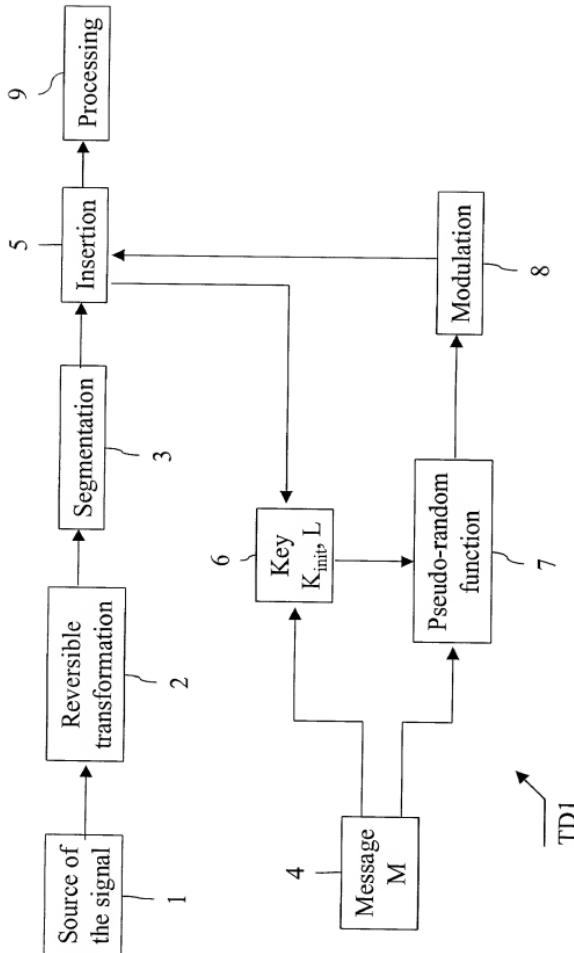


Figure 1

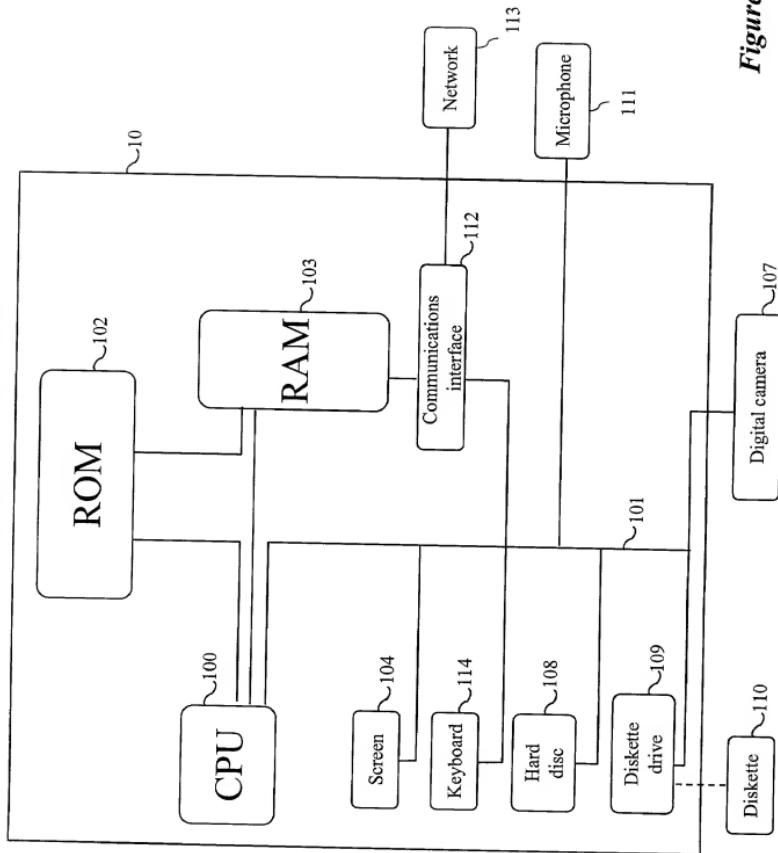
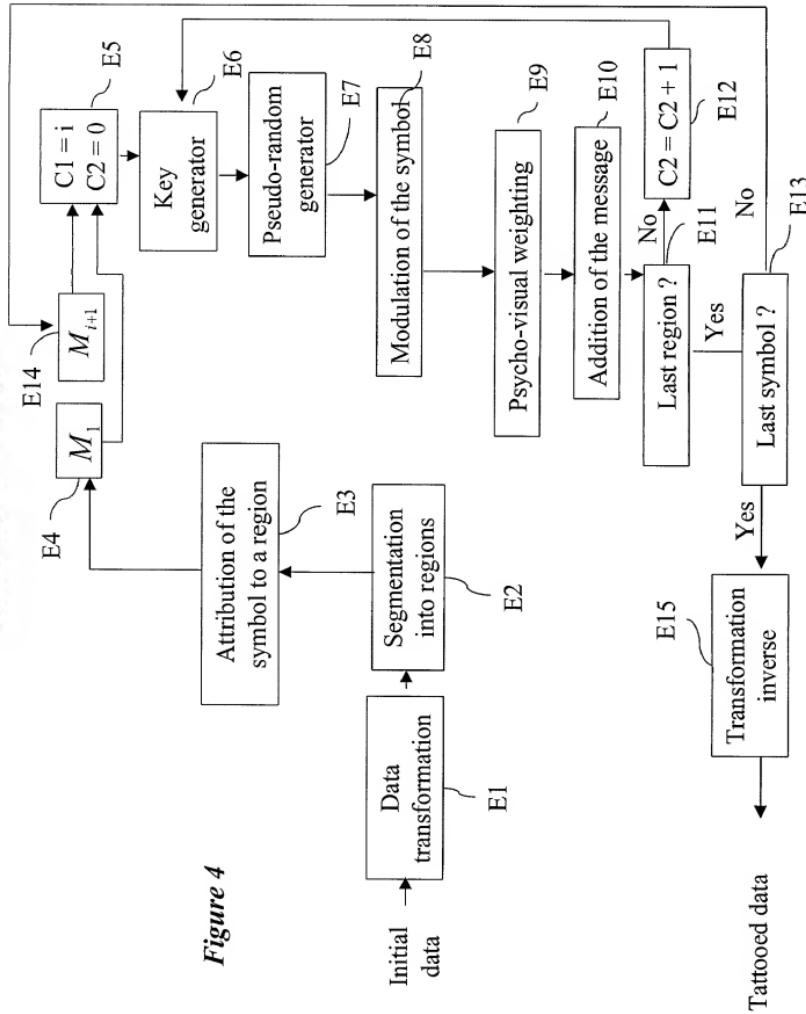


Figure 3

Tattooed data generation process

Figure 4

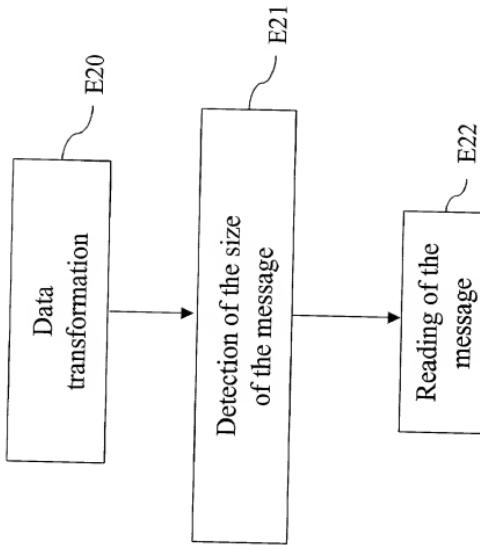
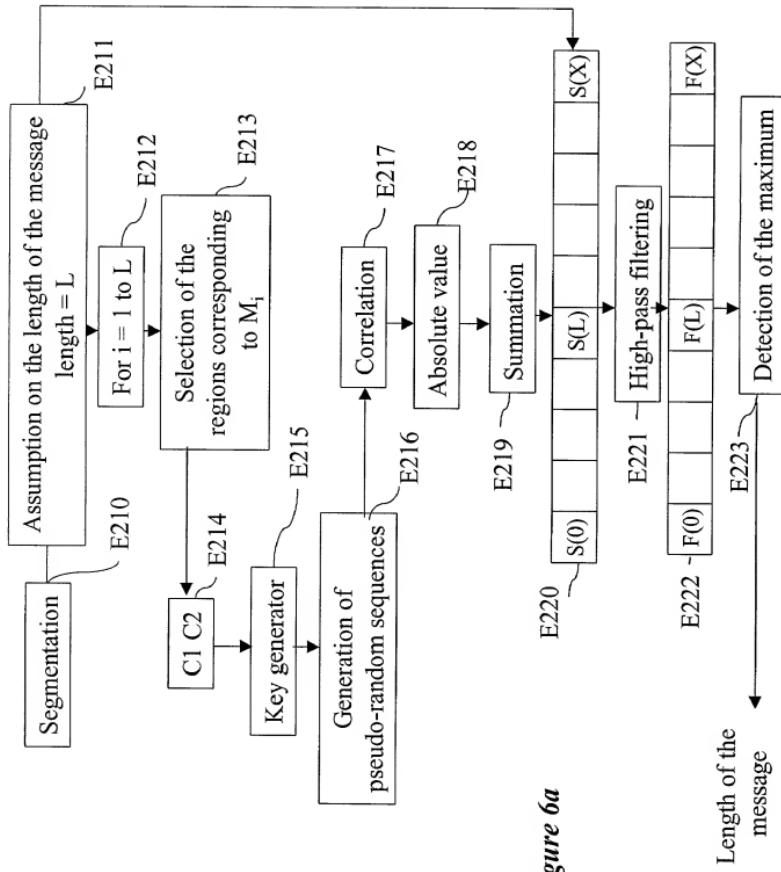


Figure 5



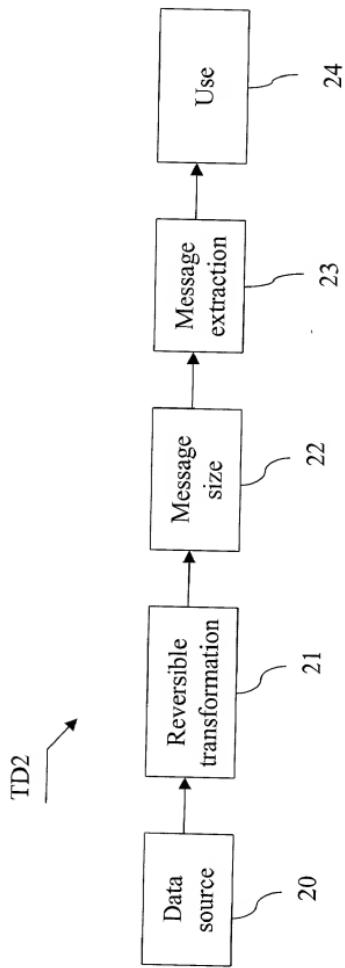
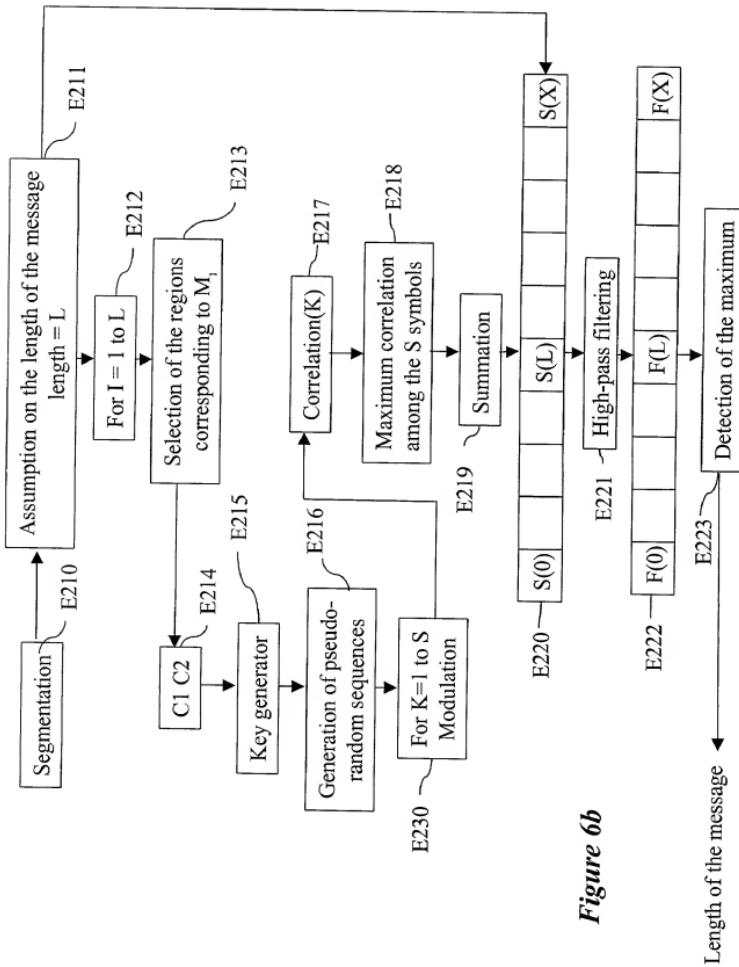
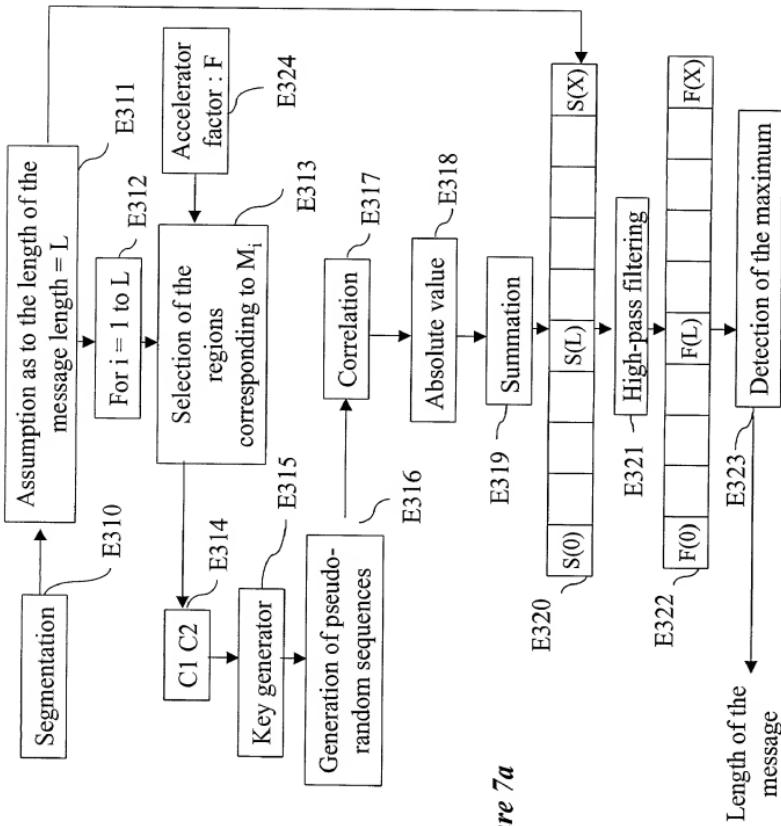


Figure 2





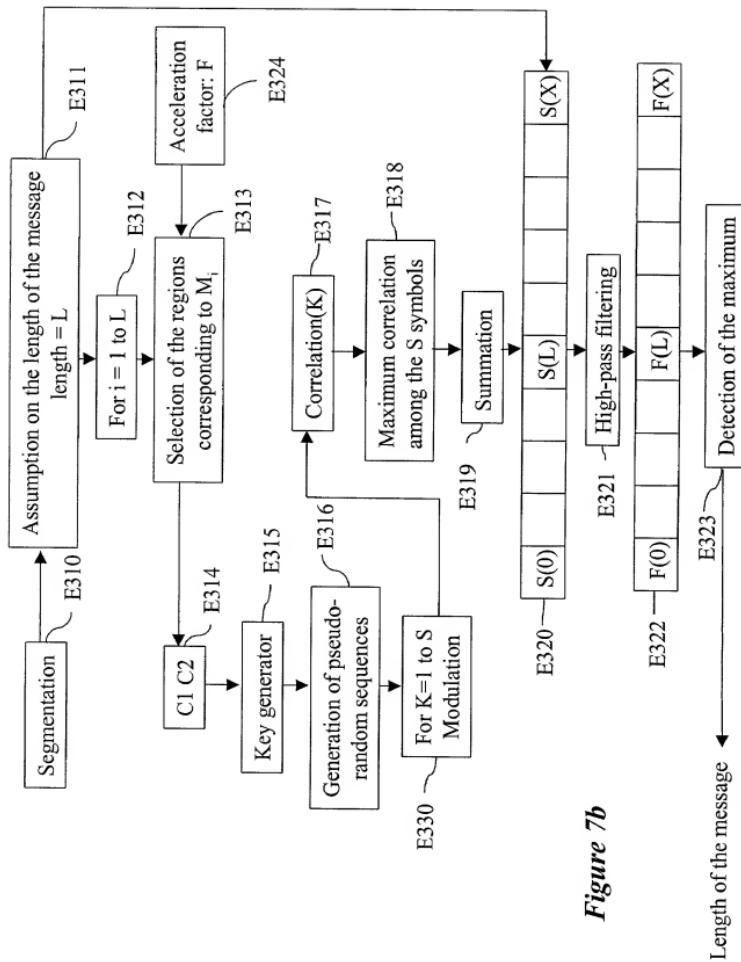


Figure 7b

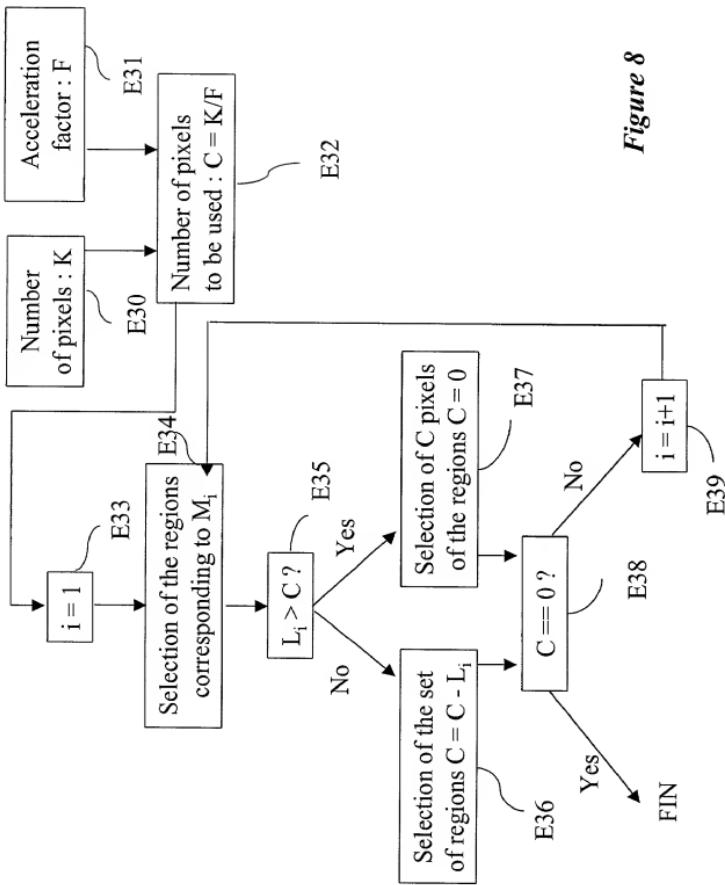


Figure 8

T D T E C O " G E G O T G G O

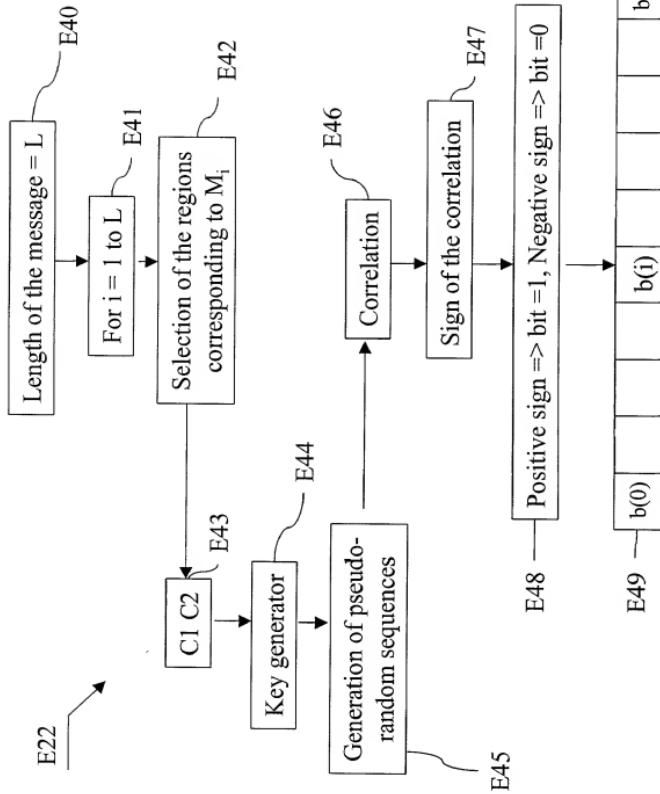


Figure 9a

B D h e c = g e g o t f g d

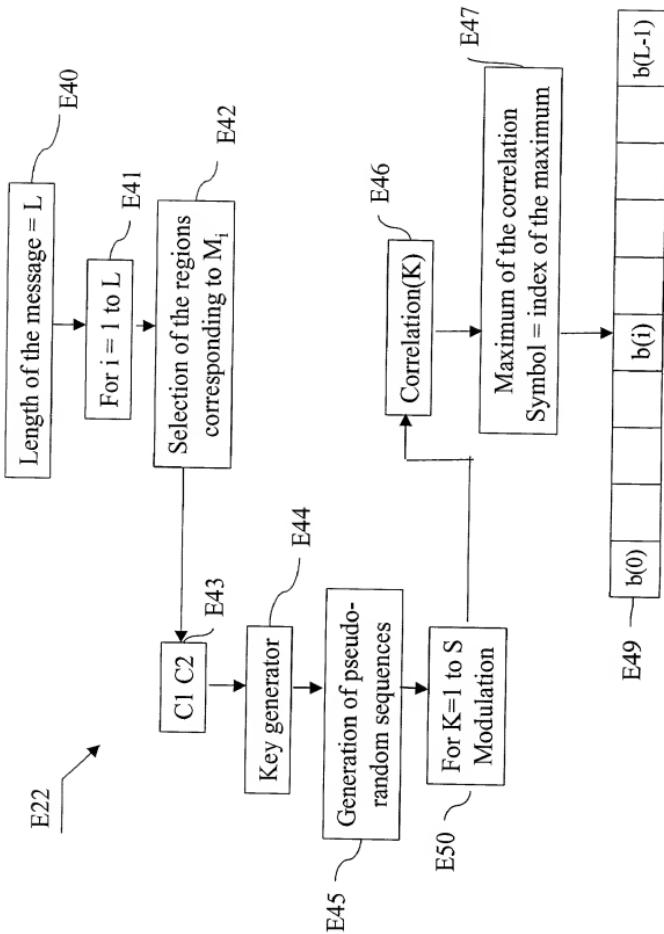


Figure 9b

S_0	R_0	S_1	R_1	S_2	R_2	S_0	R_3
K_{init}		$K_{init} + 1$		$K_{init} + 2$		$K_1 = K_{init} + N$	
S_1	R_4	S_2	R_5	S_0	R_6	S_1	R_7
$K_1 + 1$		$K_1 + 2$		$K_2 = K_1 + N$		$K_2 + 1$	
$=$		$=$		$=$		$=$	
$K_{init} + N + 1$		$K_{init} + N + 2$		$K_{init} + 2N$		$K_{init} + 2N + 1$	

Figure 10

S_0	R_0	S_1	R_1	S_2	R_2	S_0	R_3
K_{init}		K_{init}		K_{init}		$K_{init} + 1$	
S_1	R_4	S_2	R_5	S_0	R_6	S_1	R_7
$K_{init} + 1$		$K_{init} + 1$		$K_{init} + 2$		$K_{init} + 2$	

Figure 11